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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,421	04/10/2006	Robertus Albertus Brondijk	NL 031269	3754

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BRIARCLIFF MANOR, NY 10510

EXAMINER

BUTCHER, BRIAN M

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

11/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/575,421

Applicant(s)BRONDIJK, ROBERTUS
ALBERTUS**Examiner**

BRIAN BUTCHER

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 3 and 5 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (United States Patent US 7,184,377 B2), hereinafter referenced as Ito, in view of Weijenbergh et al. (United States Patent US 7,082,092 B2), hereinafter referenced as Weijenbergh, and further in view of Yoon et al. (United States Patent Application Publication US 2003/0002420 A1), hereinafter referenced as Yoon.

Regarding **claim 1**, Ito discloses a "Method of recording information on a multi-layer optical record carrier, said record carrier comprising at least two information layers and each of said information layers comprising an inner control information area, an user information area, and an outer control information area, the method comprising - a first recording step of writing information patterns representing user information in the user information area of a first of said at least two information layers, - a subsequent second recording step of writing information patterns representing user information in the user information area of a second of said at least two information layers" (figure 6 (Notice that a 'Recording/reproduction direction' is indicated by an arrow that illustrates a first recording layer 51 is first recorded with data then a second recording layer 52 is

subsequently recorded with data. Also, notice that each of the two layers has inner control information areas (items 101, 104), user information areas (items 15, 16), and outer control information areas (items 102, 103). However, Ito fails to disclose "- a subsequent finalization step of writing information patterns representing control information in the inner control information areas and the outer control information areas of said first and second information layers" and "characterized in that the method further comprises an initialization step of writing information patterns representing control information in at least one of the inner control information area and the outer control area of the second information layer, and in that the initialization step is located in time before the second recording step".

In a similar field of endeavor, Weijenbergh et al. teaches that a 'Lead-out Zone' is recorded when no additional recordings to a disc are allowed and that the disc is then considered finalized (column 15, lines 8 – 13). Also, in a similar field of endeavor, Yoon teaches that a 'lead-out area' can be utilized to keep/maintain tracking while layer jumping at an outermost circumference (paragraph [0035], lines 4 - 6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the recording method of Ito by using the teachings in Weijenbergh to include "a subsequent finalization step of writing information patterns representing control information in the inner control information areas and the outer control information areas of said first and second information layers" because one having ordinary skill in the art would want to prevent additional recordings on a disc. Furthermore, it would have been obvious to one having ordinary

skill in the art to modify the combination of Ito and Weijenbergh, the combination of hereinafter referenced as IW, by using the teachings in Yoon to include "the method further [comprising] an initialization step of writing information patterns representing control information in at least one of the inner control information area and the outer control area of the second information layer, and in that the initialization step is located in time before the second recording step" because one would want to keep/maintain tracking during a layer jump from a first layer to second layer (in which case it would be necessary to record the lead-out area (outer circumference) of the second layer before recording data to the second layer).

Regarding **claim 2**, Ito, Weijenbergh, and Yoon, the combination of hereinafter referenced as IWY, disclose/teach everything claimed as applied above (see claim 1), in addition, Yoon teaches that the 'lead-out area' utilized to stabilize tracking during a layer jump is located at the outmost circumference (figure 5, item 130).

Therefore, it would have been obvious to modify the combination of IW by using the teachings in Yoon to include "that in the initialization step the information patterns representing control information are written in the outer control information area of the second information layer" because one would want to keep/maintain tracking during a layer jump from a first layer to second layer (in which case it would be necessary to record the lead-out area (outer circumference) of the second layer before recording data to the second layer).

Regarding **claim 3**, IWY disclose/teach everything claimed as applied above (see claim 1), in addition, Yoon teaches that the 'lead-out area' has a guard function for

preventing the deviation on an optical pickup from a user data area during recording (paragraph [0035], lines 1 - 4).

Therefore, it would have been obvious to modify the combination of IW by using the teachings in Yoon to include "that the initialization step is located in time before the first recording step" because one would want to prevent deviation of an optical pickup from recording on any given layer of an optical disc.

Regarding **claim 5**, IWY disclose/teach everything claimed as applied above (see claim 1), specifically see the argument of claim 1 and notice that the method of Ito is performed by an information recording/reproducing apparatus (figure 18). In addition, the apparatus of Ito comprises a "- writing means for writing information patterns representing information in the information layers" (figure 18, item 535 'optical head section'), "positioning means for controlling the writing means such as to write information patterns on either a first or a second of said at least two information layers" (figure 18, item 504 'actuator'), "and - control means for controlling the writing means and the positioning means such as - to write information patterns representing user information in the user information area of the first of said at least two information layers, - to subsequently write information patterns representing user information in the user information area of the second of said at least two information layers" (figure 18, item 514 (Notice that the CPU controls the apparatus to perform the method of Ito.)). However, Ito fails to explicitly disclose that the control means controls the apparatus "to subsequently write information patterns representing control information in the inner control information areas and the outer control information areas of said first and

second information layers, characterized in that the control means are adapted for writing information patterns representing control information in at least one of the inner control information area and the outer control area of the second information layer before the writing information patterns representing user information in the user information area of the second of said at least two information layers".

Therefore, the Examiner maintains that it would have been obvious to one having ordinary skill in the art to utilize the CPU of Ito to perform the method of the combination of IWY above (see claim 1) because one would want to use a well known controlling unit to perform recording operations.

Regarding **claim 6**, IWY disclose/teach everything claimed as applied above (see claim 1), in addition, Yoon teaches that a 'lead-out area' can be utilized to keep/maintain tracking while layer jumping at an outermost circumference (paragraph [0035], lines 4 - 6).

Therefore, it would have been obvious to modify the combination of IW by using the teachings in Yoon to include "wherein the initialization step is located in time after the first recording step" because one would want to keep/maintain tracking during a layer jump from a first layer to second layer (in which case it would be necessary to record the lead-out area (outer circumference) of the second layer before recording data to the second layer).

Regarding **claim 7**, IWY disclose/teach everything claimed as applied above (see claim 5), in addition, Yoon teaches that a 'lead-out area' can be utilized to

keep/maintain tracking while layer jumping at an outermost circumference (paragraph [0035], lines 4 - 6).

Therefore, it would have been obvious to modify the combination of IW by using the teachings in Yoon to include “the control means [being] further adapted for writing the information patterns representing the control information in the at least one of the inner control information area and the outer control area of the second information layer after the writing information patterns representing user information in the user information area of the first of said at least two information layers” because one would want to keep/maintain tracking for an apparatus during a layer jump from a first layer to second layer (in which case it would be necessary to record the lead-out area (outer circumference) of the second layer before recording data to the second layer).

Claims 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito, in view of Yoon.

Regarding **claim 9**, Ito discloses of “A method of recording information on a multi-layer optical record carrier comprising the acts of: writing user information in a user information area of a first information layer” (see the argument of claim 1). However, Ito fails to disclose “after the writing user information act and before a jump to a second information layer for writing further user information in the second information layer, writing control information in a control area of the second information layer; and after the writing control information act, writing the further user information in a user information area of the second information layer”. In addition, Ito teaches that after a

jump from a first recording layer 51 to a second recording layer 52 there exists a continued recording of information from the first to second layer (figure 6 (Notice the directional arrow for recording.)) and Yoon teaches that a 'lead-out area' can be utilized to keep/maintain tracking while layer jumping at an outermost circumference (see claim 1).

Therefore, it would have been obvious to modify the method of Ito by using the teachings in Yoon to include "after the writing user information act and before a jump to a second information layer for writing further user information in the second information layer, writing control information in a control area of the second information layer" because one would want to keep/maintain tracking during a layer jump from a first layer to second layer (in which case it would be necessary to record the lead-out area (outer circumference) of the second layer before recording data to the second layer). Also, it would have been obvious to modify the combination of Ito and Yoon with the additional teaching of Ito to include "after the writing control information act, writing the further user information in a user information area of the second information layer" because one would want to maintain a continuity in recording after jumping to a second data recording layer.

Regarding **claim 10**, Ito and Yoon, the combination of hereinafter referenced as IY, disclose/teach everything claimed as applied above (see claim 9), in addition, Ito discloses "wherein the control area is directly adjacent to the user information area of the second information layer" (figure 6, items 103 'middle region' (control area), 16 'second user data area' (user information area of second layer)).

Regarding **claim 12**, IY disclose/teach everything claimed as applied above (see claim 9), specifically see the argument of claim 9 and notice that the method of Ito is performed by an information recording/reproducing apparatus (figure 18). In addition, the apparatus of Ito comprises "a controller configured to: write user information in a user information area of a first information layer" (figure 18, item 514 (Notice that the CPU controls the apparatus to perform the method of Ito.)). However, Ito fails to explicitly disclose "a controller configured to: [] after writing the user information and before a jump to a second information layer for writing further user information in the second information layer, to write control information in a control area of the second information layer; and after writing the control information, to write the further user information in a user information area of the second information layer".

Therefore, the Examiner maintains that it would have been obvious to one having ordinary skill in the art to utilize the CPU of Ito to perform the method of the combination of IY above (see claim 9) because one would want to use a well known controlling unit to perform recording operations.

Regarding **claim 13**, IY disclose/teach everything claimed as applied above (see claim 12), in addition, Ito discloses "wherein the control area is directly adjacent to the user information area of the second information layer" (figure 6, items 103 'middle region' (control area), 16 'second user data area' (user information area of second layer)).

Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito, in view of Weijenbergh, in view of Yoon, and further in view of Ueki (United States Patent US 6,678,236), hereinafter referenced as Ueki.

Regarding **claim 4**, IWY disclose/teach everything claimed as applied above (see claim 1), however, IWY fail to disclose "that the amount of information patterns representing control information written in the initialization step corresponds to one ECC block of information".

In a similar field of endeavor, Ueki teaches a method and apparatus for recording and reproducing information in which a recording medium has a lead-in area which stores lead-in information in units of predetermined error correction blocks (column 2, lines 61 – 64).

Therefore, it would have been obvious to modify the combination of IWY by using the teachings in Ueki to include "that the amount of information patterns representing control information written in the initialization step corresponds to one ECC block of information" because one would want to group the control information into familiar units such as ECC blocks.

Regarding **claim 8**, IWY and Ueki, the combination of hereinafter referenced as IWYU, disclose/teach everything claimed as applied above (see claims 5 and 4), specifically, see the argument of claim 4 concerning the teachings of Ueki.

Therefore, it would have been obvious to modify the combination of IWY by using the teachings in Ueki to include "wherein an amount of information patterns representing control information written in the at least one of the inner control

information area and the outer control area of the second information layer corresponds to one ECC block of information" because one would want to group the control information into familiar units such as ECC blocks.

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito, in view of Yoon, and further in view of Ueki.

Regarding **claim 11**, Ito, Yoon, and Ueki, the combination of hereinafter referenced as IYU, disclose/teach everything claimed as applied above (see claims 9 and 4), specifically, see the argument of claim 4 concerning the teachings of Ueki.

Therefore, it would have been obvious to modify the combination of IY by using the teachings in Ueki to include "wherein an amount of information patterns representing the control information corresponds to one ECC block of information" because one would want to group the control information into familiar units such as ECC blocks.

Regarding **claim 14**, IYU disclose/teach everything claimed as applied above (see claims 12 and 4), specifically, see the argument of claim 4 concerning the teachings of Ueki.

Therefore, it would have been obvious to modify the combination of IY by using the teachings in Ueki to include "wherein an amount of information patterns representing the control information corresponds to one ECC block of information" because one would want to group the control information into familiar units such as ECC blocks.

Response to Arguments

Applicant's arguments filed on 07/27/2009 with respect to claims 1 - 14 have been fully considered and are persuasive. In response, the original rejections are withdrawn and new rejections have been entered.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN BUTCHER whose telephone number is (571)270-5575. The examiner can normally be reached on Monday – Friday from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young, can be reached at (571) 272 - 7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BMB/
November 21, 2009

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627